

From Policy

To Real World Implementation



Andrea Cooper

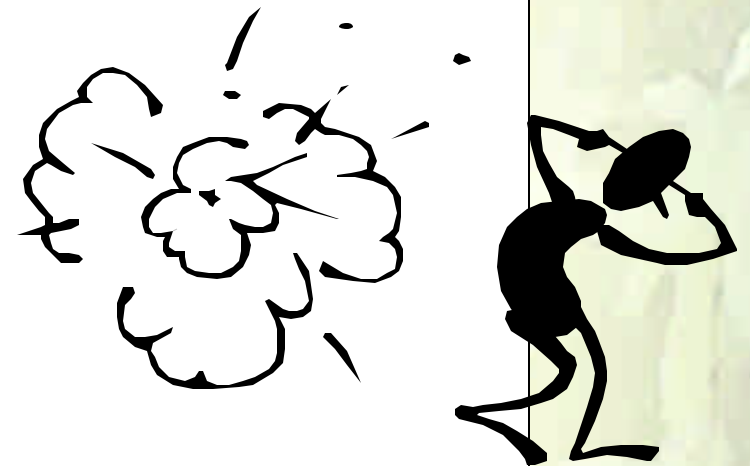
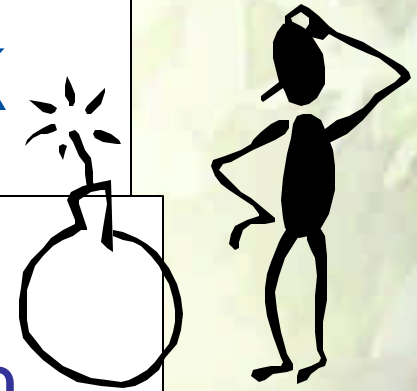
Smart Growth Coordinator

**Massachusetts Office of Coastal Zone
Management**



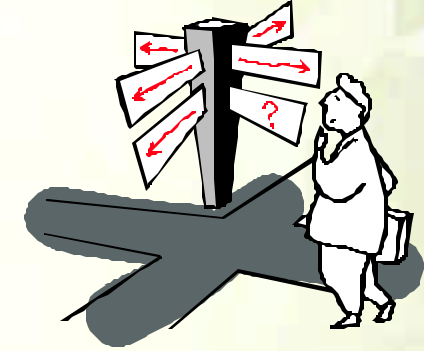
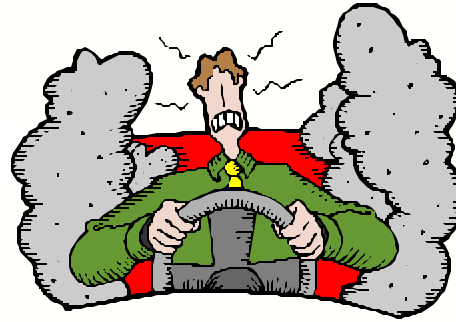
The Political Framework

- Local Control- a sacred tradition
- Lack of regional authorities/approach
- Volunteer officials
- Growth pressure
- Crisis management
- Reactive planning
- Lack of technical expertise
- Antiquated bylaws/ordinances



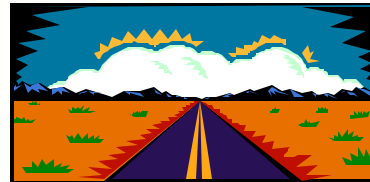
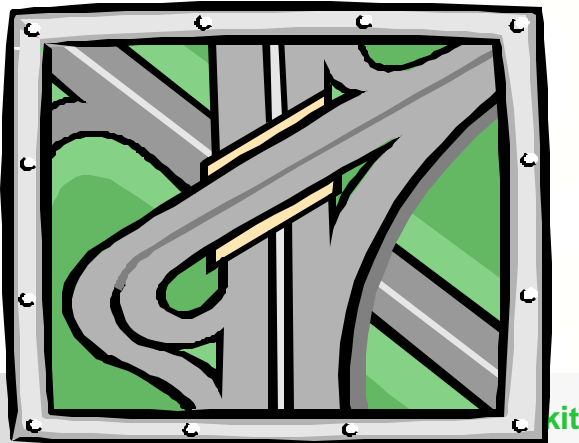
Road to Local Implementation

- Private Public Partnerships
- Grant Programs
- State Policy
- Direct Local Technical Assistance Teams



STATE
LOCAL

- Model Bylaws
- Brochures
- Power Point Shows
- Case Studies
- Fact Sheets
- Workshops



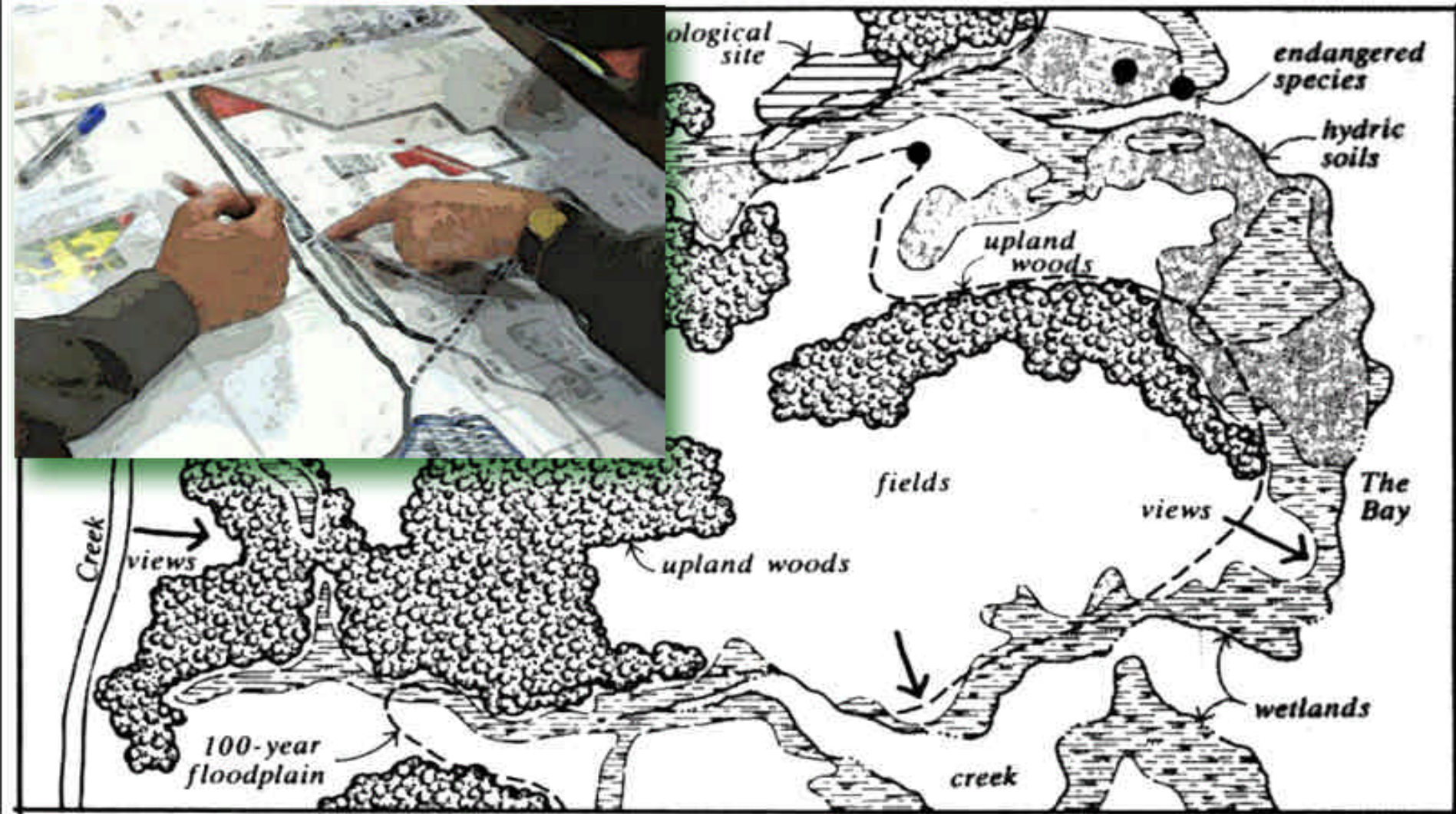
Green Neighborhoods Alliance

- Planning Boards
- Conservation Organizations
- Watershed Associations
- State Agencies

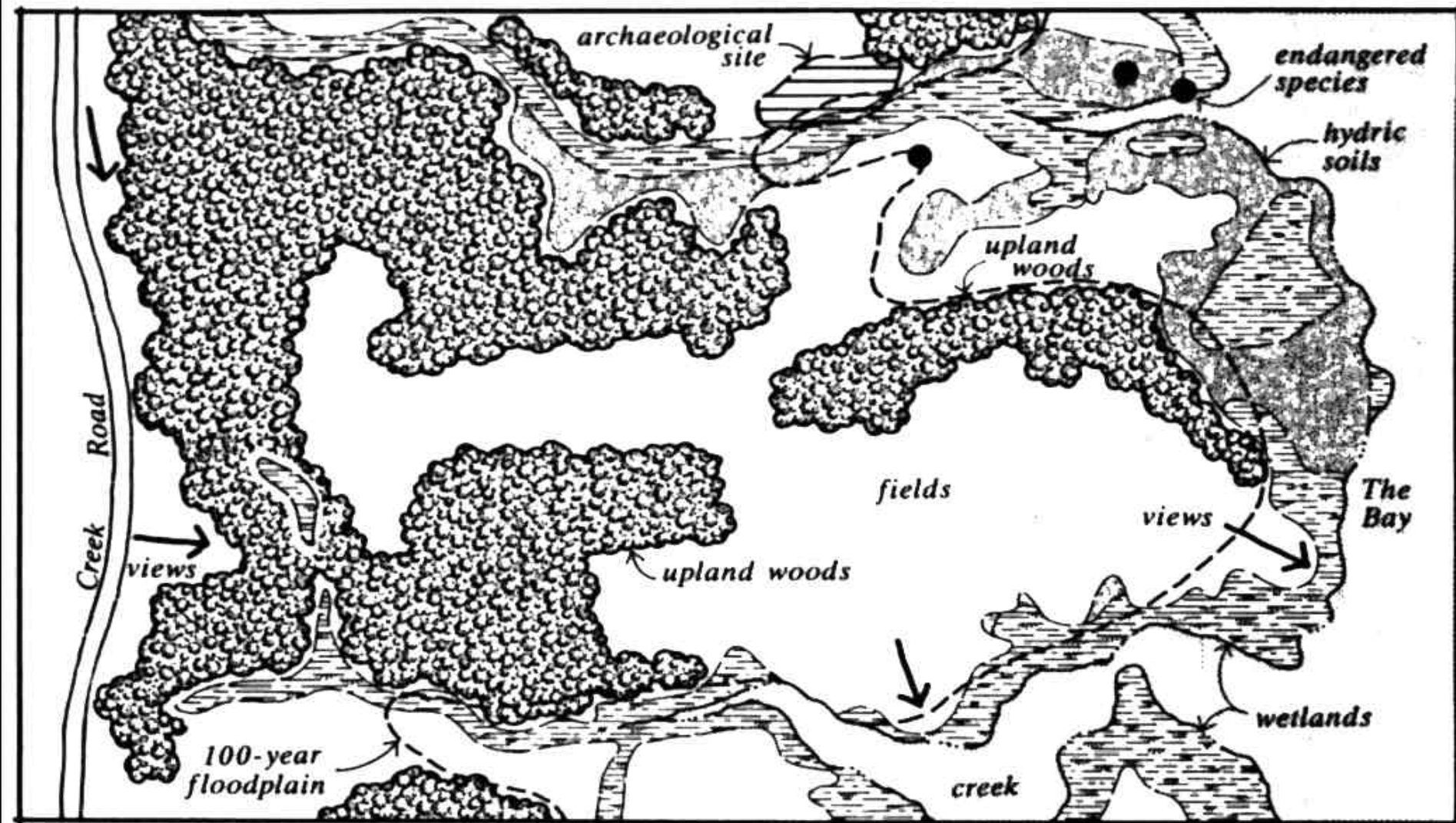


- Regional Planning.
- Federal Agencies
- North Shore Assn of Realtors
- Developers (Mass Assn of Home Builders)

The process begins with determining how many lots could be developed under conventional zoning; this is the base yield of the property. From that point, the plan development process follows four basic steps:



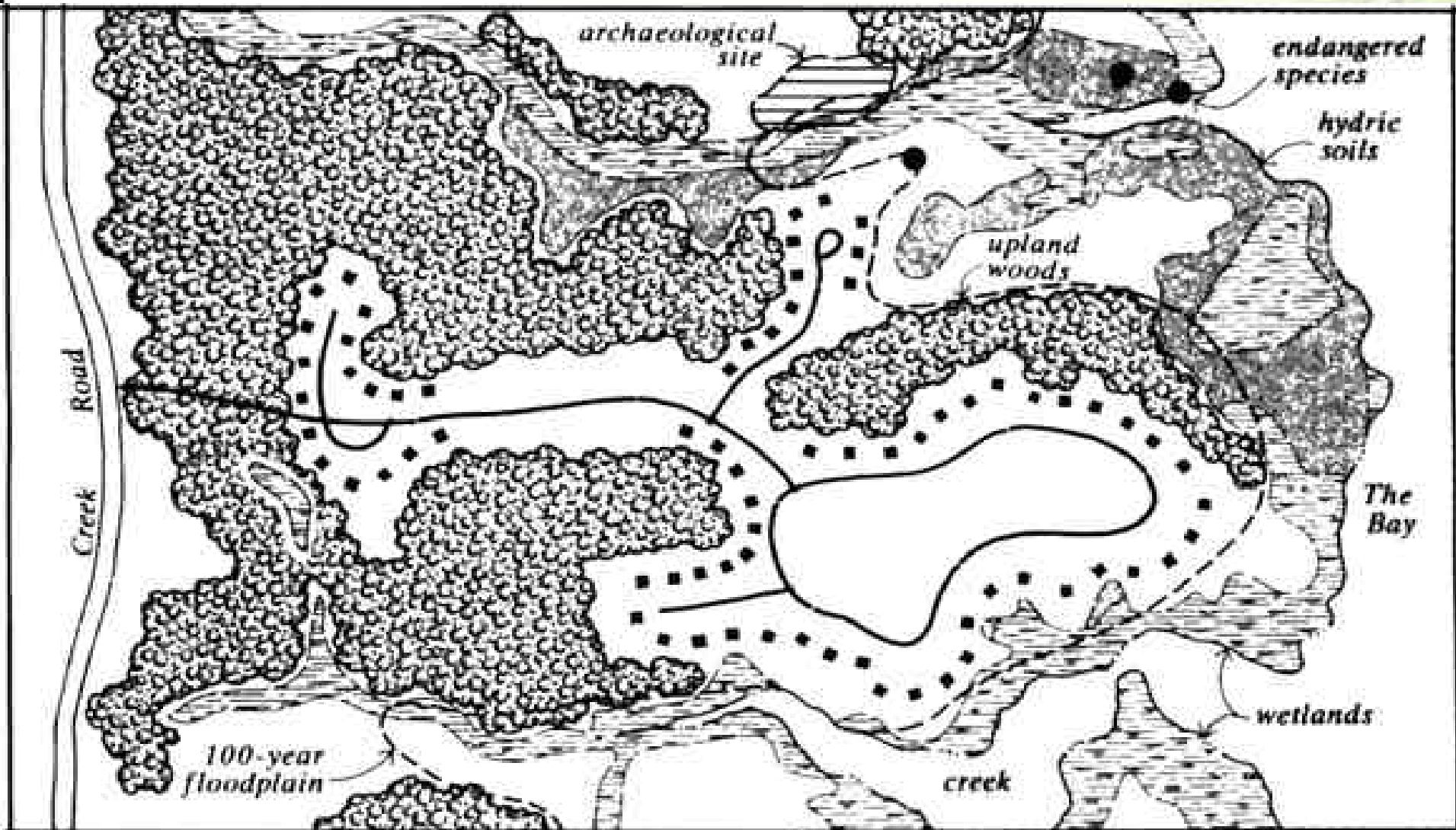
1. Identify Conservation Value Areas on the site such as wetlands, significant trees or tracts of forest, habitat, cultural resources or buffer zones. Remove these from the “developable area”.



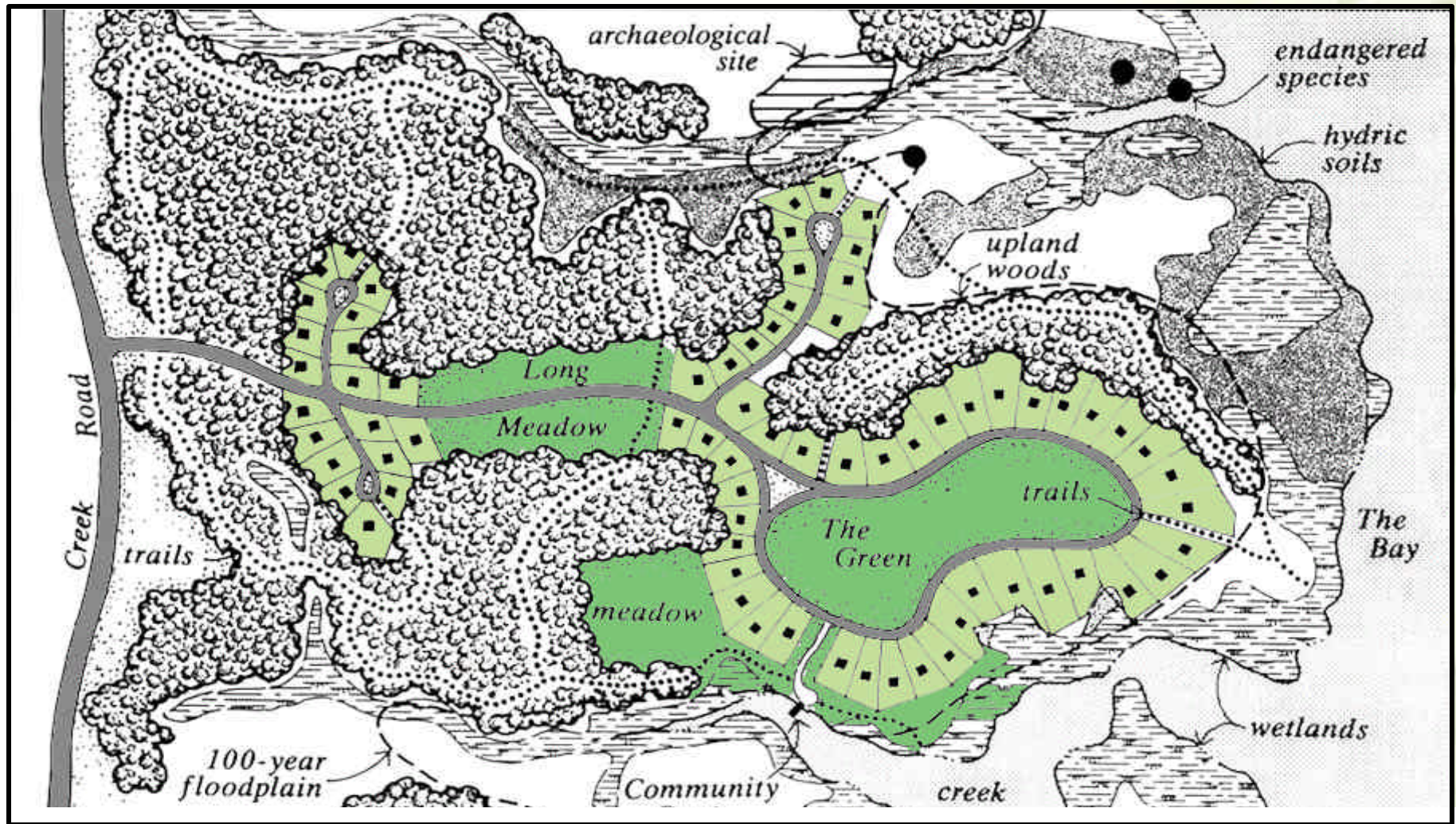
2. Place houses in the remaining area in a way that would maximize residents enjoyment of these areas by providing access to open space and preserving views.



3. Align roads and trails on the site to provide pedestrian and vehicle access.

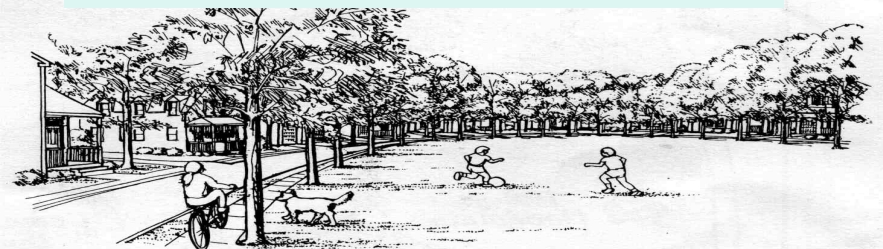


4. Draw lot lines around the homes.



Opportunities and Incentives

- Density Bonuses
 - Reduced infrastructure
 - Open space to protect habitat and promote conservation
 - Pork chop lots
 - Creative use of frontage requirements
 - Creative use of various lot sizes
- Mixed housing types for low to moderate income
 - Yard Setbacks
 - Minimum Width at Building Line
 - Maximum Impervious Surface per Lot
 - Lot Shape

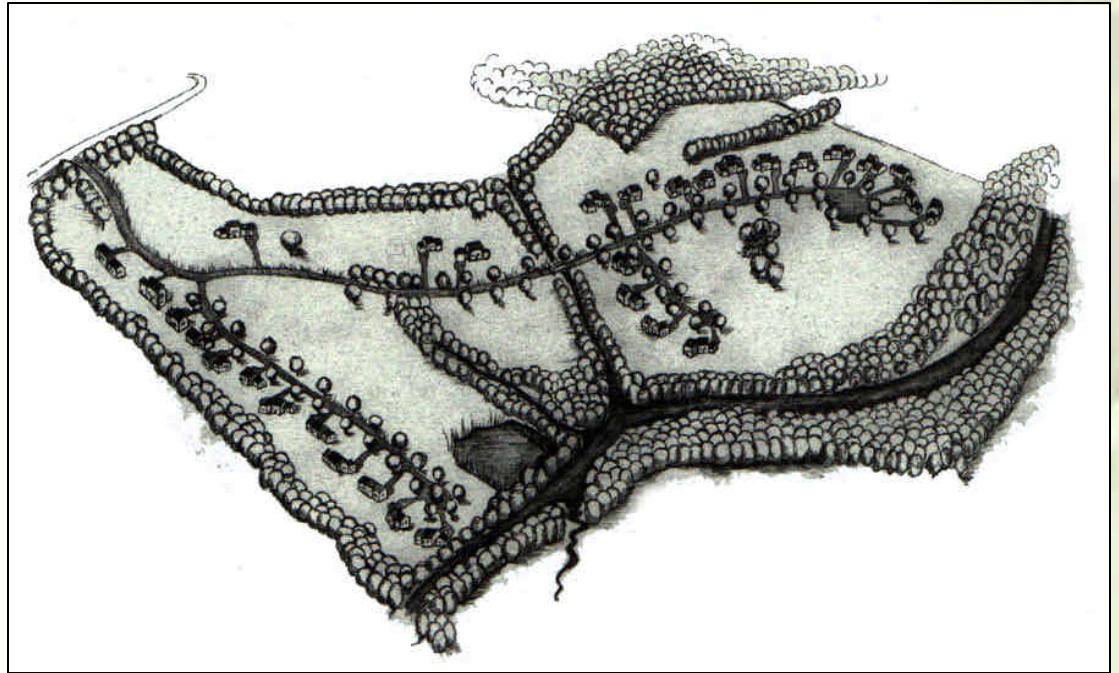


GREEN
NEIGHBORHOODS



OPEN SPACE
RESIDENTIAL DESIGN
A community choice

MODEL BYLAW



TEAM APPROACH OUTREACH

LID Working Group

- Federal, state, and local agencies
- Conservation orgs
- Watershed associations
- Private consulting, engineering, planning, law, firms/companies
- Regional planning agencies
- Developers



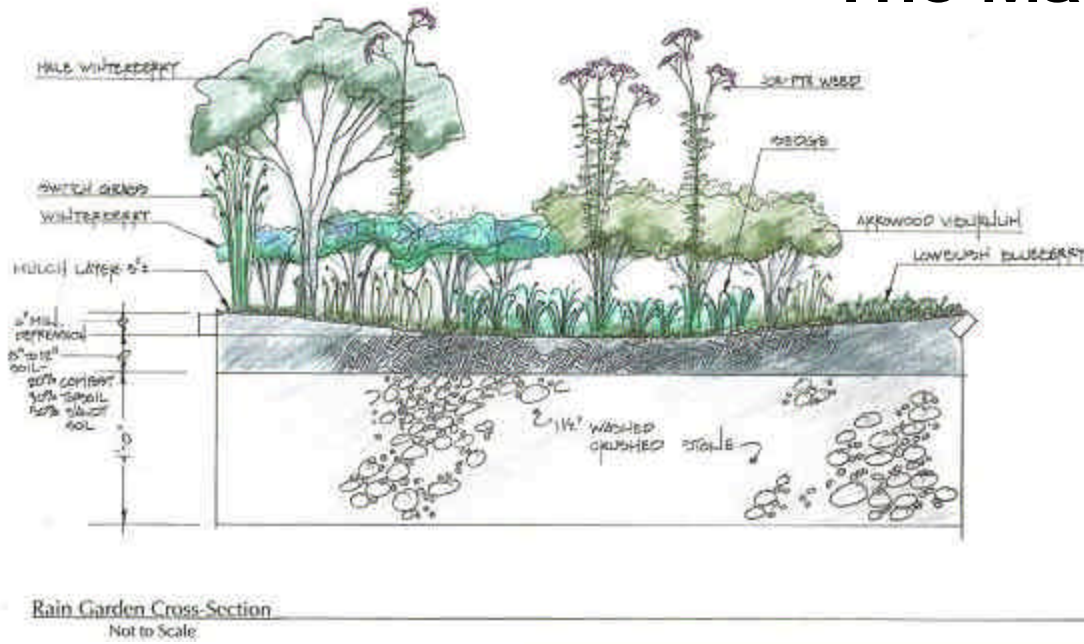
ME



**Working with
homeowners
and nurseries**

Reining In the Storm

The Massachusetts Edition



**Workshops for Local
Officials and Developers**

Welcome to the Metropolitan Area Planning Council's Low Impact Development Toolkit homepage

Explore the Toolkit:

- [An introduction to LID—for public officials, advocates, & citizens](#)
- [An introduction to LID—for developers and property owners](#)
- [An introduction to LID—for engineers, planners, and landscape architects](#)

LID Fact Sheets

- [Low Impact Site Design](#)
- [Roadways and Parking Areas](#)
- [Permeable Paving](#)
- [Bioretention](#)
- [Vegetated Swales](#)
- [Filter Strips](#)
- [Infiltration Trenches and Dry Wells](#)
- [Cisterns and Rain Barrels](#)
- [Green Roofs](#)





Smart Growth Toolkit - The Massachusetts Executive Office of Environmental Affairs (EOEA) has completed a Smart Growth Toolkit. Available [online](#) and as a CD, the Toolkit presents new methods to guide and promote sustainable and environmentally sound development and growth. For more information about the Smart Growth Toolkit and how it can assist coastal communities, contact CZM-EOEA Smart Growth Coordinator, Andrea Cooper, at andrea.cooper@state.ma.us.

Coastal Nonpoint Source Pollution Grant Program

The Coastal Nonpoint Source Pollution (Coastal NPS) grant program has been developed to assist public and non-profit entities in implementing nonpoint source (NPS) pollution control efforts. Coastal NPS grant funding can be used for assessing nonpoint sources of pollution, developing non-structural BMPs, and developing innovative, transferable NPS management tools. The program was established by CZM through a cooperative agreement with, and funding from, the National Oceanic and Atmospheric Administration.

Smart Growth Toolkit

- Transfer of Development Rights (TDR)
- Traditional Neighborhood Design (TND)
- Transit Oriented Development (TOD)
- Open Space Residential Design (OSRD)
- Accessory Dwelling Units (ADU)
- Low Impact Development (LID)
- Inclusionary Zoning
- District Improvement Financing (DIF)





Smart Growth Techniques



Slideshows

Case Studies

Model Bylaws

Links



Glossary



Low Impact Development (LID):

- A more sustainable land development approach –
- Based on an environmentally sensitive site planning process; and
- A stormwater management strategy designed to mimic natural hydrology.



BENEFITS

Environmental

- **Protects unique or fragile habitats**
- **Reduces the pollution impacts of stormwater runoff**
- **Promotes aquifer recharge**
- **Provides opportunities to link wildlife habitats**
- **Conservation values are part of the planning process**
- **Can further goals of open space and community development plans**

The planning process inherently protects natural resources and promotes recharge to underlying aquifers.

BENEFITS

Social, Recreational, and Economical

- Reduces isolation and sprawl**
- Enhances New England/local community character**
- Promotes community involvement**
- Provides neighborhood connections with an interconnected network of trails and open space**
- Reduces infrastructure and maintenance costs**
- Can be combined with 40B, the Local Initiative Program, to be an alternative to comprehensive permit to achieve affordable housing accreditation**

BENEFITS

For the Developer and Realtor

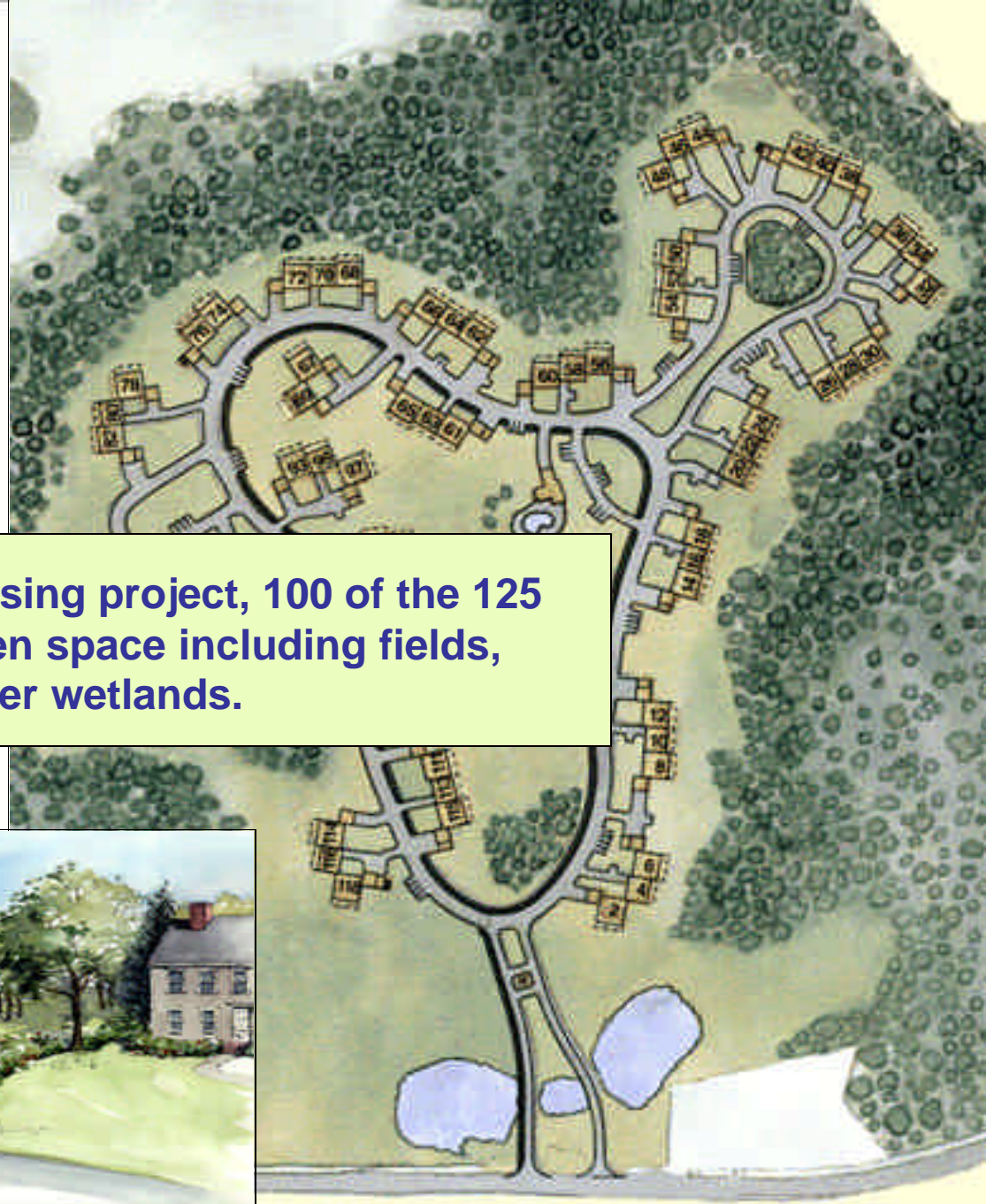
- Streamlines plan review process; reduces time and costs
- Adds valuable amenities that can enhance marketing and sale prices
- Increases resale value; homes in OSRD subdivisions have shown to appreciate faster than those in conventional subdivisions
- Provides flexibility to encourage developers to create “Green Neighborhoods”
- Decreases site development costs by designing with the terrain

The permitting structure encourages smart growth and facilitates a permitting process that is clear, easy to understand, and cost-effective to developers.

CASE STUDY

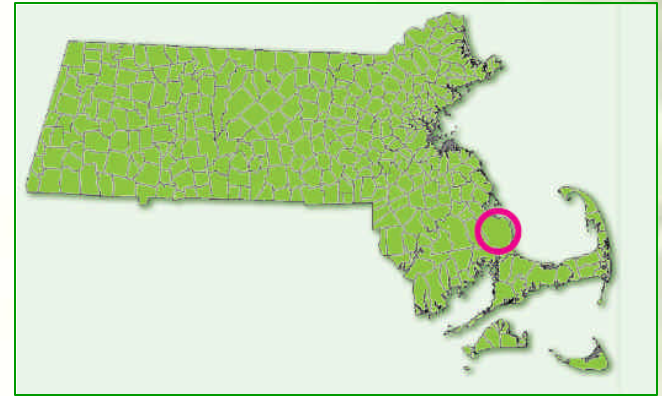
Caldwell Farm Newbury, MA

Caldwell Farm is a 66-unit housing project, 100 of the 125 acres being maintained as open space including fields, forest, freshwater, and saltwater wetlands.



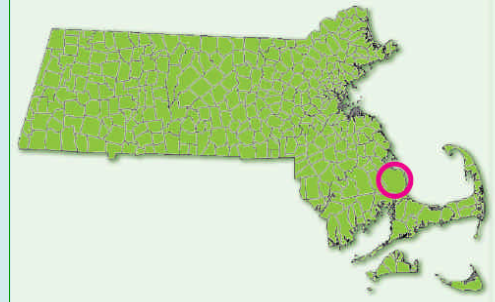
Case Study: Pinehills

- 3,000 acres
- Reduction of impervious surfaces
- Use of vegetated swales, dry well infiltrations, etc.; exceeds natural groundwater recharge rates which compensates for golf course irrigation = NO net loss of groundwater
- Wastewater reuse – treatment facility sited hydrologic ally down gradient of the water supply; treated wastewater is discharged into the ground , infiltrates and flows easterly consistent with natural conditions.

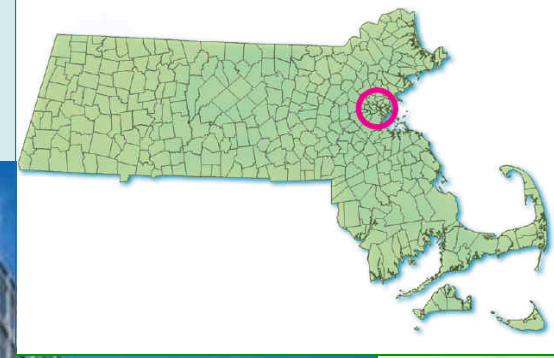


Case Study - Pinehills, Plymouth

Open Space Design and Minimization of Pavement



Case Study: Genzyme, Cambridge Re-Use of Stormwater for Irrigation



- 25% extensive green roof
- Roof system irrigated by rainfall and by stormwater that is collected in a corrugated skylight system and temporarily stored



- A second stormwater collection system gathers runoff from the penthouse roof area and stores this as “make-up” water for cooling and other mechanical operations.
- With other LID water conservation and landscaping features, Overall building consumes 1/3 less water than traditional design.

SMART GROWTH toolkit



Smart Growth
Techniques

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Glossary

- Commentary provided in each model will highlight the questions that local decision makers should ask when tailoring these models to their individual community's needs.

- In all cases, a comprehensive approach should identify potential conflicts with other existing bylaws or local rules and regulations.

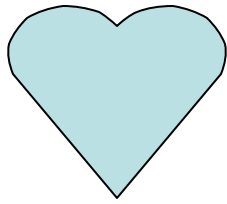
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- Adopting smart growth provisions will likely require other adjustments to other community regulations.

- **SG Toolkit Workshops – open dialogue on implementation**
- **Going to Mohammed – Annual meetings and conferences of various audiences: Watershed Associations, Mass Association of Homebuilders; Environmental Business Council, MACC; Mass Chapter of APA; etc.**



MASS



LID

- **OCD Sustainable Principles**
- **Commonwealth Capital Criteria**
- **EOEA Water Policy**
- **MEPA process**
- **CZM, DEP, & EOEA grant programs**
- **DCR land management**

